zBoost extending cell zones

By Wi-Ex®

zBoost zForce® YX240 User Guide

zBoost products have a 30-day money back guarantee when purchased directly from Wi-Ex®. If product is purchased from a reseller or third party, the purchaser is subject to the policies of the third party.

1 Year Manufacturer Warranty. Register your zBoost® product at www.Wi-Ex.com

v.1.12

zBOOST® zFORCE YX240 USER GUIDE

About zBoost® from Wi-Ex®

Wi-Ex® is the leader in cell phone signal boosters. zBoost® enhances the performance of your cell phone, PDA and wireless data card.

Compatibility – Dual Band zBoosts are compatible with 800MHz and 1900MHz regardless of technology- including CDMA and GSM.

1-year manufacturer warranty – register your product at **www.Wi-Ex.com**.

zBoost® products have more awards, more sales and more locations than all other signal boosters …COMBINED.

FCC Information

FCC ID: SO4YX240-PCS-CEL

Warning: Changes or modifications to this device not expressly approved by Wi-Ex could void the user's authority to operate the equipment. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element (antenna) shall be installed such that a minimum separation distance of 20cm (8in) is maintained from all persons.

Industry Canada Regulations

Canada IC: 5544A-YX240PCSCEL

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

RF Exposure:

The manufacturer's rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device.

Please note: This unit has been approved for use in Canada under RSS 131, however, consent for the use of this device to improve cellular or PCS coverage, must be obtained through your cellular or PCS provider, prior to placing the unit in operation. Please refer to the Industry Canada document CPC 2-1-05, Section

6.1 available or viewable at: http://www.ic.gc.ca/epic/site/smt-gst.nsf/en/sf08942e.html

Cet appareillage numérique de la classe [B] répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

Le fabricant nominale de la puissance de sortie de ce matériel est simple transporteur. Pour les situations lorsque plusieurs signaux porteurs sont présents, l'évaluation devrait être réduite de 3.5 dB, en particulier lorsque le signal de sortie est ré-émise et peut provoquer des interférences adjacentes à la bande utilisateurs.

Ce pouvoir est de la réduction par le biais de la sortie d'alimentation ou la réduction de gain et non par un atténuateur à la sortie du dispositif.

Safety and Product Warranty Information

Copyright Notice

This manual is copyrighted. All rights reserved. This manual, whole or in part, may not be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine readable form for distribution. This manual whole or in part, may not be modified without prior consent, in writing, from Wireless Extenders.

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Trademarks

Wireless Extenders, Wi-Ex, the Wi-Ex logo, zBoost, the zBoost logo and Extending Cell Zones are registered trademarks of Wireless Extenders, Inc.

Safety Guidelines

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element (antenna) shall be positioned such that a minimum separation distance of 8 inches (20cm) is maintained between the radiating element and the user and/or general population.

Limited Liability

In no event shall Wireless Extenders be liable for any direct, indirect, special, punitive, incidental, exemplary or consequential damages, or any damages, whether in an action under contract, negligence, or any other theory, arising out of or in connection with the set up of, use of, inability to use, or performance of the information, services, products, and materials available from this manual. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy. Because some jurisdictions do not allow limitations on how long an implied warranty last, or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you.

For full warranty guidelines, see page 8.

⚠ Warning

Changes or modifications not expressly approved by Wi-Ex® could void the user's authority to operate this equipment and/or void the product warranty.

Package Contents: zBoost® zForce YX240

Before you begin, make sure all of the following parts came with your zBoost® YX240.

Literature Contents:

① Set-up overview for zBoost® zForce YX240

(User Guide online only)

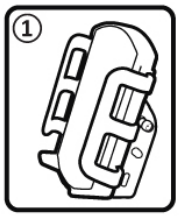
Product Contents:

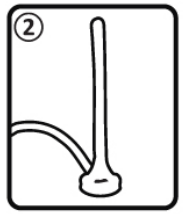
② zForce Amplifier Cradle and Mounting Adhesive

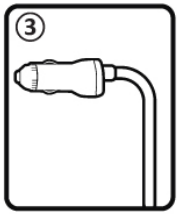
③ Exterior Magnetic Mount Antenna with 10 ft Cable

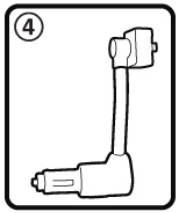
④ 12v DC Cigarette Power Adapter with 3 ft Cable - OR -

⑤ Gooseneck Adapter (optional)









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Warnings for the YX240

- The YX240 complies with FCC regulations. Follow all guidelines and read this information completely before beginning the installation procedure.
- Never operate the system in an unintended application.
- Only the provided power cable is to be used with the zBoost zForce system. Using any other power cable will harm the system and void the warranty.
- Only the antennas provided with the zForce system may be used. Use of any other antenna could adversely impact the performance of the system, cause damage to the unit and would void the warranty.
- Changes or modifications not expressly approved by Wi-Ex will void the user's authority to operate the equipment.

Note

This product uses an auto-shut-off feature. When no movement is detected for 10 minutes, the unit will power down automatically to avoid draining your vehicle's battery and will display a slow blinking green LED.

zBOOST® zFORCE YX240 USER GUIDE

Overview

Thank you for choosing zBoost zForce® to boost signal in your vehicle. Like a skylight that brings sunlight into your vehicle, zBoost® transports and amplifies the outdoor cellular signals into your vehicle.

By following the easy instructions in this user guide, you will be Extending Cell Zones™ into your vehicle.

Why Cell Phone Signals Can Be Weak

There are several obstacles that can contribute to the poor reception you receive in your vehicle:

Location of the Cell Phone Tower in Relation to Your Vehicle

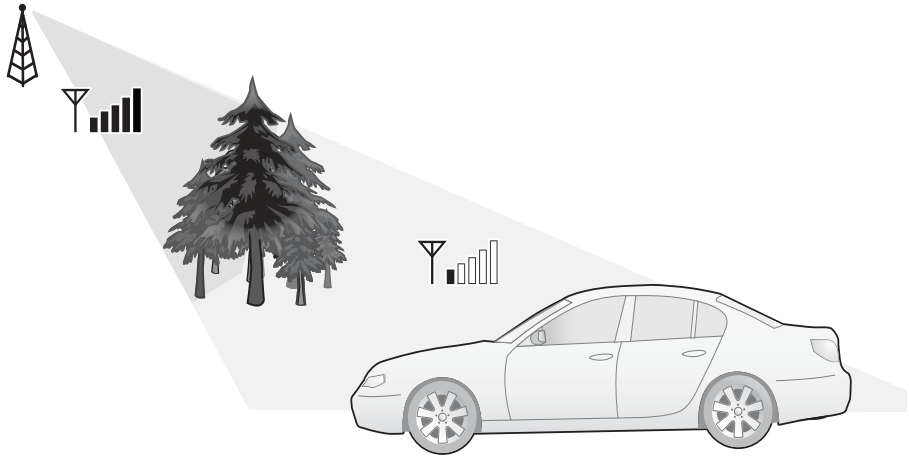
While cell phone providers have tried to place cell phone towers to provide the best overall coverage, local ordinances and terrain features can impose restrictions on where these towers can be placed, thus, limiting the signal strength available at your location.

Obstructions Caused by Buildings, Terrain and Trees

Cell phone signals can be completely blocked or reflected by buildings, walls, trees, hills and other terrain features resulting in low signal strength.

Energy Efficient Windows

These new windows can also affect signal penetration into the car.



Note

Cell phone signal bars are approximate and vary from phone to phone. The number of bars can fluctuate widely, depending on the location of the phone, the position or angle of the phone, weather, etc. Most cell phone signal meters update every 6 to 10 seconds. An increase of only one bar typically indicates a 4x to 10x signal increase.

Setting Up Your zBoost Signal Booster

NOTE: If your zForce product includes the optional Gooseneck Adapter, begin your installation on **Step 2**. Otherwise, with the standard CLA, begin on **Step 1**. To purchase the Gooseneck Adapter, visit www.Wi-Ex.com.

WARNING! Use only the provided power adapter. The use of any other power adapter or cable will harm the system and void your warranty. Before installing, please read the entire contents.

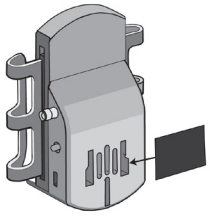
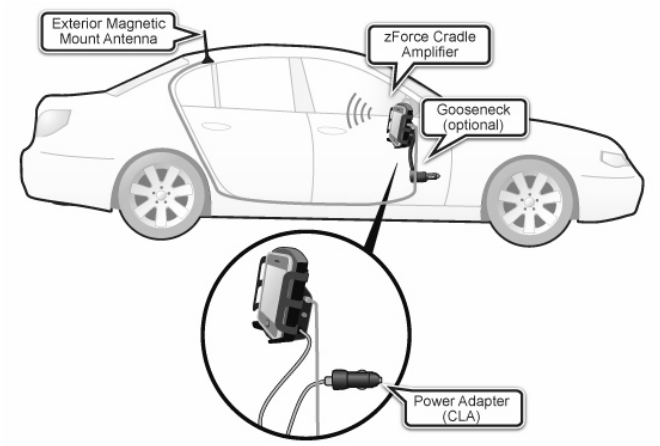


Figure 1

① **Position zForce amplifier cradle** - Choose the location within your vehicle to mount the zForce Cradle. Choose a location with a flat surface where Velcro can be applied. Avoid placing behind any metallic objects. Do not make contact with any metal surface. Position Cradle within 3 foot reach of power source. Clean the area where the mounting adhesive will be applied. Allow to dry. Peel backing to expose the adhesive and press onto the desired location. Remove the backing from the remaining side and press the zForce Cradle into place.

② **Position Exterior Magnetic Mount Antenna** - Position Exterior Magnetic Mount Antenna on roof of vehicle, making sure magnet is secured to metal surface. Thread the cable from exterior to the interior of the vehicle. Connect the cable connector to the Amplifier Cradle Unit.

NOTE: The cord running from exterior to interior of vehicle is designed to withstand pressure when closed in door.



Note

The left side of the zForce Cradle features a USB power connection so that you can charge your cell phone while using this product.

③ **Connect DC Power** - Connect DC Power Adapter to the zForce Cradle using the provided cable or, if you are using a Gooseneck Adapter, by snapping the back of the cradle onto the Gooseneck (see figure 2). Then connect to power source within vehicle.

NOTE: The left side of the zForce Cradle features a USB power connection so that you can charge your cell phone while using this product.

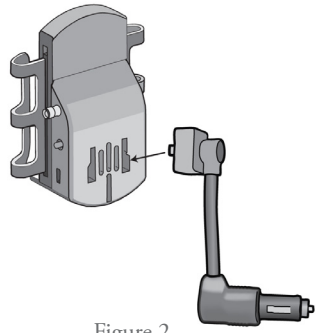


Figure 2

④ **Examine Amplifier LED** - The lighted area on the zForce Amplifier Cradle indicates the condition of the system. Review LED Indicator section below.

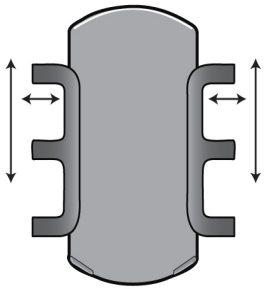


Figure 3

NOTE: This product uses an auto-shut-off feature. When no movement is detected for 10 minutes, the unit will power down automatically to avoid draining your vehicle's battery and will display a slow blinking green LED.

⑤ **Quick System Check** - Place your cell phone in the zForce Cradle. You may to adjust the arms to secure your device. Check signal strength bars. Next, turn the system off (unplug unit). You should notice a decrease in signal bar strength. The exception is if you are in an area where, with the system off, your phone is at full signal strength. Please note when you turn the system on, if your phone is receiving maximum signal strength you will not see a difference. In order for this quick test to work, you will need to test unit in a less than maximum signal strength area.

Note

Auto-Shut-Off: When no movement is detected for 10 minutes, the unit will power down automatically to avoid draining your vehicle's battery and will display a slow blinking green LED.

zBoost Cradle Light Indicator

LED Light Indicator

Solid GREEN Light	Normal Operation
Slow Blinking GREEN Light	System has powered down after sensing no movement for 10 minutes. Once movement resumes, system will power up.
Blinking RED Light	System is experiencing interference. This is caused by inadequate distance between the cradle and exterior antenna. Resolve by moving exterior antenna further back on the vehicle.
Solid Red	Indicates issue with power adapter. One possible cause is a loose power connection. Verify that the adapter is properly secured in the socket. Another possible cause is the use of an incompatible power adapter. Use only the provided adapter and/or cable or risk harm to your zForce. If you are using the adapter provided with your zForce system, please contact customer service for a replacement.

Technical Specifications

Product Specifications for zBoost® zForce YX240 – Dual Band

	PCS Band	Cellular Band
Frequency	Uplink: 1850-1910 MHz Downlink: 1930-1990 MHz	Uplink: 824-849 MHz Downlink: 869-894 MHz
Band Supported	A, D, B, E, F, C	A, B, A', B'
System Gain	Up to 20dB	up to 27dB
Networks	CDMA, GSM, GPRS, EDGE, EVDO, 1xRTT, UMTS, HSPA, 3G	
Output Power	DL: +0dBm UL: +22dBm	
Power Source	12V adapter	
System Certifications	FCC Parts 15 & 24 (PCS), Parts 15 & 22 (CEL), Industry Canada	
Base Unit Size and Weight	4.4" x 3.0" x 1.9" – 20 oz.	

Frequently Asked Questions

What can I expect my cell phone signal range and strength to be inside my car?

The closer you are to the Interior Patch Antenna, the stronger the signal. This will vary with different conditions. Some of the conditions that will affect the improved coverage area are signal strength outdoors, the type of building materials in the vehicle, the placement of the Interior Patch Antenna and the antenna's proximity to cellular towers.

You can expect that your coverage will be improved inside your vehicle. You will be able to make calls where you couldn't before. The degree of improvement will depend upon many factors. The intent of this zBoost® product is to bring outside coverage inside the vehicle. Just as the signal bars move up and down when outside, the boosted signal will fluctuate in a similar fashion.

Is a cellular phone signal booster the same as a wireless router; will it help my WiFi signal?

The Wi-Ex® unit will not help your WiFi service. This unit is designed to work with wireless PCS and Cellular phones and devices. The WIFI in your home or office operates on a different frequency.

Is your product available for international use?

Yes, we have products that work on European frequencies. Our zBoost® YX520-I Dual band works on 900MHz and 1800Mhz.

We also sell zBoost® ONE YX400-U for UMTS/HSPA devices on the 2100MHz Frequency, a frequency used for voice and data overseas.

Why isn't my cell phone indicating more signal with more bars?

You may not always observe more bars that gain on your signal meter because of the signal spreading out from the antenna. If your phone has a dB meter, 3dB is a significant increase of 2x, 6dB is 4x, and 10dB is 10x. On a four bar phone, one "bar" equals about 10dB.

The increase in signal you will see depends upon:

- The level of signal at the Signal antenna (outdoor)
- The care of the antenna placement
- The signal already present inside the vehicle
- The distance of your phone/device from the Interior Patch Antenna (signal spreads or diminishes rapidly with distance)

Does the zBoost® work if you have no bars?

No, if no signal is present outdoors zBoost® products will not work for you. Also, keep in mind if your best signal is 1 bar at the Signal Antenna, your coverage will be limited.

Warranty Information

Limited 1 Year Warranty

Register your product at www.Wi-Ex.com

Wi-Ex® warrants every Wi-Ex® product to be free from defects in material and workmanship under normal use for the warranty period of one year.

Who Is Covered?

You must have proof of purchase to receive warranty service. A sales receipt or other documentation showing the product purchased and the purchase date is considered proof of purchase. This limited warranty extends only to the original consumer purchaser or any person receiving the product as a gift from the original consumer purchaser and to no other purchaser or transferee. This warranty does NOT extend to commercial users.

What is Covered?

Warranty coverage begins the day you purchase the product. For one year from the original date, the Wi-Ex zForce Cell Phone Signal Booster will be repaired or replaced with a new, repaired, refurbished or comparable product (whichever is deemed necessary by Wi-Ex) if it becomes defective or inoperative. The exchange will be made without charge to you for parts and labor. You will be responsible for the cost of shipping to the location designated by Wi-Ex. If Wi-Ex cannot reasonably repair or replace the unit then Wi-Ex may, at its sole discretion, refund the price you paid for the product. All products, including replacement products, are covered only for the original warranty period. When the warranty on the original product expires, the warranty on the replacement product also expires.

What is Excluded?

Your warranty does NOT cover:

- Labor charges for set up of the unit.
- Product replacement because of misuse, accident, lightning damage, unauthorized repair or other cause not within the control of Wi-Ex.
- Incidental or consequential damages resulting from the product. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.
- Any modifications or other changes to the product, including but not limited to software or hardware modifications other than as expressly authorized by Wi-Ex will void this warranty.
- Product that has been modified or adapted to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.

Make sure you keep…

Please keep your sales receipt or other document showing proof of purchase. Attach it to this Setup Overview and keep both nearby. Also, keep the original box and packing material in case you need to return your product.

To get warranty service…

Warranty service will be provided by Wi-Ex. If you believe you need service for your unit, contact Wi-Ex at 1-800-871-1612 or support@wi-ex.com. A representative will go through a diagnostic checklist with you. If it is determined that the product needs to be returned for service or exchanged, you will receive a return merchandise authorization (RMA) number. The representative will give you complete shipping details. Do not return products to Wi-Ex without a Return Authorization Number (RMA).

zBOOST® zFORCE YX240 USER GUIDE

To get out of warranty service…

To obtain out of warranty service, contact Wi-Ex at 1-800-871-1612 or support@wi-ex.com for information on the possibility of any costs for repair or replacement of out-of-warranty products.

Reminder

Record the model and serial number found on the product below:

Model #_____

Serial #_____

Purchase Date_____

Technical Support

For technical support, warranty issues or return authorization, contact Wi-Ex Support between the hours of 8:30 AM and 5:30 PM EST at 1-800-871-1612, email Support@Wi-Ex.com or visit www.Wi-Ex.com. Before calling, locate the serial number on the amplifier unit. The serial number is required for technical support or establish a return authorization.